

**Report of the Hon. John S. Martin, Jr.
To the Fidelity Independent Trustees
Respecting Potential Harm to Fidelity Funds
From Traders' Receipt of Improper Travel,
Entertainment, Gifts and Gratuities**

I. Executive Summary

A. The Investigation

During a period beginning in or before January 2002 and extending through October 2004, some traders employed on the equity trading desk of Fidelity Management & Research Company (together with its subsidiary FMR Co., Inc., "Fidelity") disregarded Fidelity's policies and ethical guidelines to accept extravagant travel, entertainment, gifts and gratuities ("TEGG") from brokers with whom they placed trades in securities held by Fidelity funds. The Staff of the Securities & Exchange Commission ("SEC")¹ and Fidelity have extensively investigated traders' receipt of improper TEGG. Their investigations have included examining the nature and extent of the TEGG provided, identifying the traders and brokers whose relationships were affected by TEGG and determining who committed the most serious infractions. Fidelity's Independent Trustees have asked us to consider how the traders' behavior affected the mutual funds advised by Fidelity (the "Funds"), and in particular to assess whether and to what extent the traders' conduct may have resulted in harm for which Fidelity should compensate the Funds and to make a recommendation as to the amount, if any, of reimbursement that the Funds should seek from Fidelity.

¹ As used herein, "SEC" refers solely to the Staff of the Securities & Exchange Commission.

In addressing this question, I and colleagues working under my supervision at Debevoise & Plimpton LLP (“Debevoise”) have examined brokers’ trading practices with Fidelity, studied material provided by Fidelity to the SEC, interviewed traders who were not implicated in the receipt of TEGG, reviewed available SEC deposition transcripts and summaries of testimony, reviewed electronic communications to and from the equity trading desk, and obtained and considered the perspectives of Fidelity management and the SEC (and their expert advisors). This Report generally accepts, with limited modifications discussed below, the SEC Staff’s preliminary analyses (which Fidelity largely does not contest) respecting the nature and extent of improper receipt of TEGG and the nature of consequently conflicted or “tainted” relationships between traders and brokers. We also retained CRA International (“CRA”) to attempt, through a statistical analysis of trading data, to generate objective, statistically reliable measures of the potential for harm resulting from traders’ decisions to place trades with a broker as a result of TEGG.

B. The Issues Raised

Answering the question posed by the Trustees required considering two issues: (1) the likelihood that the Funds suffered as a result of the fact that traders acting on their behalf accepted TEGG from brokers they used to execute trades for the Funds; and (2) whether any potential damage to the Funds can be estimated reasonably. It is not possible to answer either of these questions with certainty.

In attempting to answer these questions, we have focused primarily on two types of potential harm: (i) execution quality harm – that is, potential harm in the form of traders’ receiving poorer execution performance from brokers selected based on receipt of TEGG than the traders would have obtained from choosing brokers without regard to TEGG; and (ii) order flow harm – that is, potential harm from traders’ diversion of orders to brokers in return for benefits provided to the traders personally, when those orders could alternatively have been directed elsewhere in return for benefits the brokers provided to the Funds.

1. Execution Harm

As we will demonstrate in detail below, it is impossible to “prove” statistically that the traders’ receipt of TEGG did or did not result in excessive execution costs for the Funds. The lack of certainty inherent in any attempt to measure harm does not mean, however, that there was no harm; nor does it alleviate the need to attempt to ascertain, to the degree possible, whether and to what extent harm occurred. This is particularly true since both logic and contemporaneous evidence suggest that there is a substantial possibility that the traders’ acceptance of TEGG could have resulted in higher execution costs for the Funds.

As a fiduciary, Fidelity had an obligation to seek to achieve the best possible trading results for its Funds and their shareholders. However, once a trader accepted TEGG his desire to seek best execution may have been compromised by the desire to reward the broker to whom he was indebted. When traders were motivated by their

desire or gratitude for TEGG, it is likely that they chose brokers based at least in part on the brokers' ability to provide them with personal benefits, rather than choosing brokers solely because of the quality of their trade execution. Traders' mixed motives mean their actions must be viewed with skepticism, and their trades scrutinized for potentially damaging decisions and unwarranted costs. In short, if we know traders were not single-mindedly seeking the best possible execution on each trade, we cannot assume they got it.

More than logic suggests that there is a substantial possibility that the receipt of TEGG by Fidelity traders resulted in execution harm to the Funds, however. During the period when Fidelity traders were regularly accepting TEGG, people in the trading room exchanged a number of email messages which suggest that these individuals believed that the traders' receipt of TEGG was hurting the Funds.

At least one series of trades mentioned in those email messages, the eight million share Tyco trades of January 30, 2002, provides evidence that traders' actions in response to the receipt of TEGG could have resulted in execution harm to the Fidelity Funds.

Email traffic we reviewed indicates that Fidelity trader Edward Driscoll used one broker, **Redacted** to purchase eight million shares of Tyco just days before **Redacted** **Redacted** of **Redacted** was to fly Driscoll by private jet to the Super Bowl in Houston, Texas. In his own emails, Driscoll indicated that he used **Redacted** for the trade because they were flying him to the Super Bowl. The total cost to the Funds of Driscoll's performance on the Tyco trade was as much as \$18 million, although as noted below this poor outcome may have been a function of unpredictable market events. While no one can say that Fidelity could have obtained better execution from some other

broker, the Tyco trade demonstrates the magnitude of the cost that the Funds could incur from a single trade in which the receipt of TEGG may have influenced broker selection.

In addition, we have found several instances where substantial orders were placed by traders with brokers in close temporal proximity to times when those brokers had provided lavish TEGG to the traders. In a few of those instances the execution costs were surprisingly high, given that the market was moving in a favorable direction during the trade. While further investigation indicated that the apparent excessive costs during favorable market conditions may have resulted from unique circumstances surrounding the trade, one cannot exclude the possibility that one or more of these trades resulted in execution harm to the Funds.

2. Order Flow Harm

The second type of harm that may have resulted from a trader's sending trades to a broker in recompense for TEGG is harm in connection with the diversion of order flow. The flow of orders from the Funds has value for brokers in terms of the commissions and opportunity for profit that it brings, and has value for the Funds as a means of rewarding brokers for service to the Funds and encouraging exceptional performance on behalf of the Funds. Fidelity has described the value of order flow in detail, noting among other things that it is sometimes used to reward brokers who commit capital to assist in the execution of large orders and that brokers agree to accept lower commissions from the Funds in order to become "core brokers" because they believe that they will then receive greater order flow from the Funds. Given the value of order flow to Fidelity, if a trader

uses the Funds' order flow to repay TEGG, he deprives the Funds of the ability to use that order flow for their own economic advantage. It is evident from Fidelity's own statements, therefore, that order flow is an asset – the value of which is also demonstrated by the Tyco trade, where the commission the broker received exceeded \$250,000. In effect, in a trading room order flow is “the coin of the realm.”

C. The Uncertainty Of Any Assessment Of Harm

Although logic and evidence suggest that harm was possible, from the investigation's early stages we have recognized the lack of certainty that necessarily accompanies the attempt to determine whether the Funds in fact suffered execution quality harm or order flow harm. In the context of seeking to measure execution quality harm, this uncertainty arises from several different factors:

- Except in a small number of instances of an unusual spike in trading activities directly linkable to an unusually extravagant TEGG event (or instances where emails indicate a linkage between a TEGG event and a trade), it is generally impossible to say that individual trades between a tainted trader and a tainted broker would not have been placed with that broker but for the taint, or that all such trades were made as a result of the receipt of improper TEGG. Tainted and untainted traders alike extensively used the tainted brokers, and even tainted traders could have had good reasons for selecting a TEGG-providing broker for most trades without regard to receipt of TEGG. While it seems clear (and Fidelity has acknowledged) that tainted traders sent some trades to tainted brokers for reasons related to TEGG, it is impossible to specify and isolate for analysis of harm the trades improperly directed to brokers as a result of TEGG, as distinguished from other trades that even the tainted traders legitimately placed with those brokers.
- Any attempt to measure execution quality harm by comparing the outcome of a notionally tainted trade against an untainted trade must recognize that no two trades are precisely identical, and that marketplace factors will often play a more important role than the execution skills of the broker in

determining the execution performance of a trade. CRA has employed highly sophisticated analyses to address differences among trades, by controlling for a wide range of variables that have the potential to differentiate trades, but that resourceful and exhaustive effort only narrows the problem somewhat, without overcoming it.

- Any measure of execution quality harm is necessarily limited by the sufficiency of the data used to identify, characterize, and distinguish a trade and the degree to which the available data enables precise comparisons between trades and sets of trades. The enormity of Fidelity's trading business, array of trading mechanisms, combination of mechanized and human elements, number of individuals and entities involved and potential for error all affect the precision of the data associated with each trade and every comparison of trades. While the data can be sufficient without being perfect, the unavoidable imperfections in the inputs contribute a level of imprecision to any measurement of harm.

While potential execution harm is difficult to quantify, it is even more difficult to quantify the potential cost to the Funds of misdirected order flow. Any measurement process will inescapably depend on an assessment, based at least as much on intuition as on statistics, of what portion of the order flow provided by any individual tainted trader to a tainted broker would not have been provided but for the TEGG. Even if the misdirected order flow could be measured, having to ask whether and to what extent the Fidelity Funds would have achieved net benefits had that order flow been sent to another broker adds another layer of uncertainty. Generally, the tainted brokers were sufficiently strong and proven performers to have achieved some form of preferred broker status or the potential to be granted that status, and Fidelity had negotiated with each of its brokers nearly uniform low net commission rates that would not generally be sensitive to or altered by the marginal quantities of order flow implicated by the traders' assumed favoritism. Other forms of potential benefits to a Fund associated with directing order

flow to one broker instead of another – from tangible benefits like increased willingness to commit capital to intangible ones like greater broker responsiveness – are difficult or impossible to measure even though intuition suggests they exist.

The uncertainty associated with the analysis of harm is partially evident in CRA's statistical conclusions. CRA's variety of analytic approaches repeatedly yielded ranges of possible harm in which the median of the range was indicative of some positive harm but a 95% statistical confidence interval with respect to possible outcomes included zero or nearly zero harm, or even net benefit. The conclusion that as a matter of statistics the null hypothesis that the traders' behavior caused zero harm could not be ruled out is highly significant, but so is the array of results suggesting a median result of some harm under a wide variety of different measurement approaches. So also is the conclusion that the upper ends of the confidence interval, indicating the possibility of substantial harm, are as statistically likely to reflect the reality as the zero or negative numbers at the bottom of the range.

D. Conclusions and Recommendations

In my view, the question to be answered here is not whether the Funds were in fact harmed by the traders' receipt of TEGG, but how the Trustees should respond to the traders' breach of fiduciary duty that put the Funds in harm's way. In these circumstances, the burden of proof and the weight to be given to what is arguably equivocal statistical evidence should be substantially different than the burden applied or weight given by a court attempting to determine whether harm in fact occurred.

Where, as here, a fiduciary has breached its duty to act solely in the interest of the funds, the inescapable uncertainty in measuring the harmful effects of taint arising from TEGG should not result in a finding that there is no remedy. The Independent Trustees should not refrain from asking Fidelity to recompense the Funds for the harm the Funds may have suffered. Here, the traders' self-reported record of improper instances of TEGG and the spontaneous email communications obtainable from the trading desk's electronic archives evidence a pervasive atmosphere of casualness about the receipt of TEGG and inattention to its potentially corrupting effects. Fidelity developed and articulated its TEGG policies, inadequately enforced as they were, not only to prevent violations of statutory prohibitions against "*quid pro quo*" trading decisions by mutual fund traders but also to avoid the appearance and the possibility of corrupting harm, in a context where the possibility must be avoided because the actuality is difficult to detect. Thus where the traders engaged in conduct giving rise to a substantial possibility that the Funds were harmed, fairness suggests that Fidelity, as the manager responsible for the conduct of those traders, should not seek to avoid its fiduciary duty to ensure that the Funds were not harmed simply because of the difficulty in quantifying the harm.

That is particularly the case when the Trustees (as fiduciaries to the Fidelity Funds and Fund shareholders) and Fidelity itself (as a fiduciary to those same Funds and shareholders) have a responsibility to ensure with reasonable confidence that the Funds were not harmed by what Fidelity has conceded to be wrongdoing by traders. Under settled legal principles that permit applying less stringent standards of certainty to the assessment of amount of harm than to determinations of liability and the existence of

some harm, even a judge in a court of law facing the inexactitude just described would be able to make findings of harm based on estimates. It is appropriate for the Trustees as fiduciaries to go further than even that approach to damages would suggest, in order to obtain a higher level of assurance that after any corrective payments are made the Funds will not have suffered uncompensated harm.

Under this approach, the determination of whether and to what precise extent shareholders suffered harm, which might be the central issue in a litigation governed by rules of evidence and issues of burden of proof, becomes subordinate to the issue of what payment should be made to the Funds to ensure with reasonable confidence that the Funds do not end up being undercompensated for the improper conduct that indisputably took place.

CRA's statistical analysis, considered in its own right and in light of the thoughtful commentaries provided on it by the SEC and Fidelity, provides guideposts for estimating the amount of payment by Fidelity that would be appropriate to compensate the Funds for possible execution quality harm under this approach. While the analysis has obvious limitations (arising from the intractability of the exercise, not from any lack of quality in CRA's work), Fidelity's critiques do not point to a superior alternative methodology for quantifying execution quality harm. Similarly, the commissions that tainted brokers received from their dealings with tainted traders provide a baseline for a rough estimate of the separate form of possible harm arising from redirections of order flow.

As explained in more detail in the conclusion at pages 66-74 below, I recommend that the following payments be sought from Fidelity:

Execution Quality issue - all accounts	\$28.4 million
Order Flow issue - all accounts	<u>\$22.5 million</u>
Subtotal	<u>\$50.9 million</u>
Portion of subtotal allocated to mutual funds	\$40.7 million
Reimbursement of expenses borne by the mutual funds	\$8.2 million
Interest (as of November 30, 2006)	<u>\$4.5 million</u>
Total	<u>\$53.4 million</u>

II. Scope of the Investigation

Our consideration of whether and to what extent traders' receipt of TEGG may have affected the Funds has included examination of the behavior, contemporaneous communications, decision-making, explanations and trading records of traders on Fidelity's equity trading desk, as well as consideration of the SEC's and Fidelity's evaluations of these events. For the examination of trading records and efforts to analyze the results of tainted traders' transactions using tainted brokers, we have primarily looked to CRA (and to its consultant Prof. Mark Ready, former Chief Economist of the SEC), which has devoted approximately 25,000 hours to this effort. CRA has conducted an exhaustive analysis of an enormous quantity of data, attempting to isolate reliable trading data, to develop responsible methodologies for measuring harm and to ensure that its analysis takes into account factors affecting individual trades as necessary to compare the

costs of one set of trades against the costs of others. **Redacted**

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My role, and that

of my Debevoise colleagues, with respect to this important component of the analysis has been to oversee and direct CRA, to consider and comment on its proposed approaches, to identify lines of inquiry, to receive and critique regular interim reports, to evaluate issues presented by Fidelity, the SEC and their experts, to consult about questions that arise and to evaluate and comment on proposed conclusions.

While, as described below, we have conducted a detailed review of available investigative transcripts, interview memos and internal Fidelity documents, we have not conducted an independent investigation to determine whether there were additional instances in which Fidelity traders accepted TEGG. Given the passage of time and the fact that we lacked the power to subpoena witnesses or documents, we doubted that we would be able to uncover instances of TEGG that had not been disclosed to the SEC. In addition, since Fidelity's traders had already provided reports of the TEGG they received and been questioned by the SEC, it was extremely doubtful that re-interviewing the traders would uncover evidence of additional TEGG, particularly after Fidelity employees had been disciplined for the receipt of TEGG which they had self-reported.

Therefore, in attempting to determine whether the Funds were harmed as a result of the traders' receipt of TEGG, we accepted, with one exception, the tainted pairs of traders and brokers identified by the SEC and limited our inquiry to the time period for each tainted pair identified by the SEC. The one exception was that we identified one

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additional tainted pair – Driscoll/**Redacted** – based on the facts surrounding the Tyco trade.

With respect to the narrower issue of whether and to what extent the Funds may have been harmed by trades undertaken as a result of TEGG, though, we have pursued numerous factual lines of inquiry independently of Fidelity and the SEC, along with and separately from the CRA analysis. These activities have involved over 2,000 hours of work since this investigation began under my direction in September 2005.

Debevoise’s work has included the following activities, among others:

- (i) We have reviewed over eight thousand electronic communications from, to and among traders on Fidelity’s equity trading desk. These included emails and Bloomberg messages identified by Fidelity for review by the SEC,**Redacted**

Redacted at

Redacted, as having particular bearing on the effect of TEGG.

We also obtained and reviewed emails we specifically requested from Fidelity by date range, trading name, stock name or other search terms because of their potential to help us understand traders’ perspectives or to illuminate particular areas of concern, including Bloomberg messages and emails sent or received on each of the twenty days on which any tainted trader executed a trade of three million shares or more with a broker with whom he had a tainted relationship.

(ii) We studied the summaries of traders' self-reported responses to Fidelity's Business Gifts and Entertainment Survey, to identify from the many listed events nearly one hundred TEGG events of a scale most likely to have had a potential to influence traders' selection of brokers. We and Fidelity were able to identify specific or fairly specific dates for sixty of these events, after extensive inquiries by Fidelity at our request going beyond the trader self-reports to traders' Microsoft Outlook and hardcopy calendars, information provided by SEC staff attorneys, expense information provided by counsel for Jefferies & Co., emails and Bloomberg messages previously produced to the SEC, Fidelity trade data, credit card statements that traders had provided to Fidelity, transcripts of testimony taken by the SEC and internet searches. **Redacted**

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While we ran into several impediments that prevented us from developing a comprehensive list of all TEGG events and their precise dates – including the absence of personal access to traders (many of whom have left Fidelity and are not voluntarily providing information to it), the passage of time and the fading of traders' memories – we believe that we were able to review a sufficient representative sample to permit an examination of possibly event-driven trading patterns surrounding major TEGG events.

(iii) We reviewed sixteen transcripts or summaries of depositions taken by the SEC in connection with its investigation – a number limited only by

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Fidelity's lack of access to the testimony of witnesses who declined to share their testimony with Fidelity. Fidelity provided and we reviewed transcripts of the testimony of **Redacted**

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We did not

directly interview any tainted traders – the most significantly tainted traders no longer work at Fidelity, and almost all tainted traders were represented by counsel who placed limits on access to them. We did not consider this gap an insuperable obstacle to our investigation, though, because (i) we accepted the SEC's preliminary analyses about what relationships were tainted,² (ii) we assumed that every tainted trader would say that although he sometimes directed trades to a broker in gratitude for a TEGG event he never intentionally compromised his focus on achieving best execution for the Funds in using that broker, and (iii) we did not view tainted traders as likely to be objectively reliable sources for

² Throughout CRA's analysis, we used the SEC's preliminary analyses as to tainted pairs as set forth in **Redacted**
Redacted After discussions with Fidelity, the SEC revised its analyses to exclude three pairs it decided were not tainted, **Redacted**
Redacted Fidelity continued to use the January 17 identification of pairs to some extent, and in an excess of caution, we continued to use the more extensive list.

determinations of whether and to what extent their TEGG-related trading decisions caused any harm to shareholders.

- (iv) We frequently obtained and carefully considered factual information and analytical perspectives provided by Fidelity, and to some extent by the SEC. Our fact-gathering from Fidelity included observation of trading desks and interviews of its Head of Equity Trading and untainted traders.

It also included numerous meetings with representatives of Fidelity

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to hear presentations and perspectives regarding such matters as methodology for analyzing trades, trader compensation and incentives, Fidelity's broker selection system, commissions, order flow, fund costs, equity trading desk culture and practices, and the reliability and limitations of electronic records. In addition, I met with or spoke to representatives of the SEC on a number of occasions, to hear their perspectives and to share generally the direction of our investigation. We also reviewed numerous suggestions from Independent Trustees, in meetings during which we provided status reports and in separate conversations with individual trustees, about proposed lines of inquiry or approaches to considering the issues.

- (v) We sought and considered Fidelity's information and perspectives, and those of several experts it retained, regarding the impact of the traders' conduct and the circumstances in which trades took place. Fidelity shared

with us the analyses conducted and presented to the SEC by several economic experts, including **Redacted**

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We also met

with each of these experts,³ in some instances on numerous occasions, to obtain their inputs on such matters as the likelihood and amount of possible harm, appropriate or inappropriate methodologies for measuring harm, the difficulties associated with measuring harm, the reliability of Fidelity's trading data and the asserted failings in CRA's analysis. These experts also had direct conversations with counterparts at CRA, and CRA representatives also solicited and obtained reports from SEC economists and staff attorneys.

- (vi) We reviewed Fidelity's numerous submissions to and correspondence with the SEC regarding the impact of traders' receipt of TEGG on the Funds,

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- (vii) To check Fidelity's records against those of a selected broker, we met with Jefferies & Co., Inc. on November 10, 2005, and attempted to obtain certain trading information. When Jefferies was not able to provide the requested information in a timely manner, I determined that the limited relevance of the information did not justify a delay in this report.

³ Some of these meetings with Debevoise attorneys representing the Trustees occurred prior to the time I became involved in the investigation.

CRA participated actively in these information exchanges. It also conducted an extensive separate review of trading activities that included gathering comprehensive records from Fidelity's equity trading desk, external market materials and limited materials provided by brokers, as set forth in more detail in its report. **Redacted**

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CRA had numerous discussions and meetings with Fidelity personnel in an effort to understand Fidelity's systems for recording and reporting trades, and several conversations with SEC counterparts in an effort to understand the SEC's analysis. As CRA approached the conclusion of its inquiries, it had two sets of meetings with Fidelity and the SEC. It met separately with Fidelity and the SEC staff in June 2006 to describe its proposed analytical methodology in detail, to answer questions about that methodology and to invite critiques it should consider when applying that methodology to the trading data. It then met with each of Fidelity and the SEC once again in late August and early September, to present the results of its statistical analysis of execution quality harm, again with the aim of answering questions and receiving comments to consider in finalizing its analysis. In connection with each of these meetings, I instructed CRA to proceed and it did proceed with complete transparency, providing Fidelity and the SEC with its complete database and all programs used in performing its execution quality analysis and extensively answering all questions that Fidelity or the SEC presented to it.

While the sheer volume of information underlying the trading practices in issue makes the exercise of placing limits on the factual investigation a difficult one, I believe

that our investigation has been thorough, objective and sufficient to support the conclusions presented in this report.

III. Attempts to Measure Potential Harm from TEGG

A. The Capacity for Trader Actions in Response to TEGG to Cause Harm

Our analysis of potential harm started with consideration of the ways a trader's selection of a particular broker based on TEGG might have the capacity to cause harm. We have accepted Fidelity's presentations to the effect that generally the placement of trades with brokers is a highly "trader-centric" process, in which traders typically place tight controls on the numbers of shares brokers are asked to trade and the prices at which those orders are to be executed. We have also accepted that the variations in individual brokers' overall execution records (which Fidelity carefully monitors) from one period to another make it difficult to identify which of the group of Fidelity's "core brokers" can be expected to achieve the best or the worst performance on any particular set of trades. We understand that Fidelity's selection of firms as core brokers provides a basis for concluding that they were each viewed as satisfying threshold requirements of skill, that commission rates were essentially uniform among core brokers, and that there were often good reasons to place trades with non-core brokers.

Despite these facts, it appears self-evident that selection of a particular broker to engage in a trade based on the receipt of TEGG carried potential for adversely affecting shareholder interests, in at least three ways:

1. It would be an error to assume that the choice of a broker for a trade will not affect the execution costs of that trade and to view all brokers, or even all core

brokers, as interchangeable in skill. Traders developed business relationships with brokers in part because they believed the individual brokers were particularly skilled at reading the marketplace, delivering counterparties for trades, placing large volumes of trades with minimal effect on market prices (a skill of particularly substantial importance to a high-volume trader like Fidelity), detecting and advising about trading momentum, knowing about trends or developments in a business sector, and performing the logistics of a trade responsibly and effectively. If these skills had not been viewed as a highly important point of differentiation among brokers, Fidelity would undoubtedly have done more of its trading at lower commissions through electronic brokers or other discount facilitators. While the desire to spread trades among different brokers to avoid moving market prices with Fidelity trades was part of the reason for not concentrating all trades among a handful of brokers, the different brokers were also available because they had particular talents to offer. Fidelity's compensation system linking components of traders' pay to their success in placing trades inexpensively implicitly recognizes that differences in broker quality and in traders' interactions with brokers can affect results. Internal Fidelity emails commenting on "poor broker selection" for particular trades tend to confirm that these brokers were not viewed as mechanically interchangeable and that the choice of the wrong broker may have a significant impact on the execution cost of a trade.

2. There were many ways a trader could reward a broker for a TEGG event that could adversely effect the execution cost of a trade. Traders could excuse a favored broker from committing capital to reduce Fidelity's risk on a trade, or could allow a commitment of capital that was essentially risk free in ways that would increase the broker's commissions (because capital committed trades are not subject to commission rebates). Such actions could have caused virtually undetectable shareholder harm, in the form of missed opportunities to achieve better execution.

3. Order flow was, in its essence, the "coin of the realm" for Fidelity traders. Ideally, it should be used to reward brokers who provide exceptional service to the Funds or to induce them to do so. A trader could direct order flow to a favored broker for no difference in commission cost and often for little or no readily perceptible difference in execution cost, but to the substantial benefit of the broker (who would not only obtain the Fidelity commission but also often earn commissions from the opposite side of the same trade). Brokers' provision of TEGG to tainted traders inherently reflected, at least in part, the brokers' belief that their economic returns from the TEGG would exceed the cost of the gifts. In principle, the order flow that traders gave to TEGG-giving brokers should have been used for the benefit of the Funds, not for the benefit of individual traders.

These intuitions about the ways the Funds and their shareholders could theoretically be harmed as a result of traders' directing trades in recompense for TEGG have formed the foundations for our attempts to measure harm.

B. Attempts to Measure Execution Harm

Fidelity offered the view **Redacted** that "it may be impossible to do a reliable regression concerning the relationship, if any, between TEGG/relationships and execution quality harm." **Redacted** This contention, for all of the analytical rigor that may lie behind it, is ultimately unsatisfactory. The implication it carries -- that the extraordinarily complex difficulties associated with attempting to measure execution quality harm warrant abandoning the effort -- would result in the unacceptable outcome that even if the Funds suffered substantial harm, they must be left uncompensated because of the imperfections of any method for measuring its likelihood and magnitude. The alternative approach of pursuing the most comprehensive statistical analysis possible seems preferable, even despite the expectation from the outset that the results would invariably involve some approximation, would inescapably be susceptible to critics' proposal of yet another variable to be considered, and would yield answers at confidence intervals reflecting a fairly broad range of uncertainty.

We retained CRA on September 20, 2005 to do a thorough analysis of tainted traders' performance in transactions with tainted brokers, and to see whether any conclusions emerged about the probability of harm caused by traders' receipt of improper

TEGG. We understood that this analysis would require review of an enormous volume of data, and that the combination of imperfect data, confounding variables, results affected by external market forces outside any trader's or broker's control and need for some approximation would make generation of statistically definitive conclusions about the magnitude of harm unlikely. I nevertheless believe that this type of analysis is an essential component of any serious investigation of harm.

CRA's work involved selecting and applying a methodology for measuring tainted traders' execution performance in trades with tainted brokers, then comparing the results against the execution performance that the same traders could have expected to achieve if they had placed the same trades with untainted brokers. Each component of this exercise involved a carefully considered judgment about the preferred way to proceed, and these judgments appear to have been well-founded.

1. Measuring Tainted Traders' Performance With Tainted Brokers

As explained in CRA's report, we elected to measure tainted traders' performance with tainted brokers through an "implementation shortfall" analysis. **Redacted**

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Implementation shortfall compares the quoted price of shares as of a determined starting point of a trade to the ultimate full cost of executing the trade, characterizing the difference as the "execution cost" of engaging in the purchase or sale transaction.

André F. Perold, *The Implementation Shortfall: Paper vs. Realty*, *The Journal of Portfolio Management*, Spring 1998, at 4-5. Execution costs include fixed costs, such as commissions and other costs associated with price impacts – the difference between the

quoted price for the shares at the starting point and what is paid for them, which can be positive or negative.⁴

For the temporal starting point in CRA's implementation shortfall analysis, CRA selected the moment when a trader conveyed an order to a broker – initially, the time of the first order placed with respect to a block of shares, and then later, as CRA's analysis embraced different orders from within a trading block that were placed at different times, the placement time of each separate order in the “creeping blocks.” **Redacted** CRA chose this point on the basis that it marked the beginning of the broker's performance with the trader, reasoning that earlier actions of traders between their receipt of orders from portfolio managers and their placement of orders with the brokers did not particularly bear on the broker's performance.

To employ this approach, CRA had to be able to identify reliably the times when Fidelity's traders placed their trades with particular brokers, the prices of the shares at these times, and the total ultimate execution costs of the trades. CRA obtained this information from different sources. **Redacted** Fidelity's records provided good data on the electronically recorded times and costs of completions of trades, and CRA was able to circumvent Fidelity's lack of generally reliable data respecting quotes at the times of order placement by resort to records of these quotes on the stock exchanges' internally maintained databases. **Redacted**

⁴ Implementation costs theoretically also include the opportunity cost of not trading and transfer taxes, but CRA did not calculate those costs, focusing instead exclusively on comparisons of direct trading costs.

The central issue respecting data reliability in this context related to identifying the precise times when traders placed their orders with brokers.

Fidelity initially expressed the belief that its records did not contain reliable information about broker order placement times. Fidelity apparently formed this view because it doubted that information requiring the human intervention of traders instead of being entered automatically was generally reliable, and because the personnel who initially made the checks into whether Fidelity's system generated reliable placement times looked only at individual tickets for orders from portfolio managers rather than at the block level where Fidelity's trades were ordinarily placed. CRA nevertheless tested the recorded placement times for orders to brokers in Fidelity's system at the block level – initially for the first trades in a block (“top block”), and later for each incremental trade in a block (“creeping block”) – and found them sufficiently reliable to support pursuing an implementation shortfall analysis. **Redacted** CRA's tests included not only confirming that the overwhelming majority of broker placement times reported in Fidelity's records were properly sequenced between the recorded times for receipt of orders from portfolio managers and completion of the trades, but also determining that there was close agreement between Fidelity's internal records of broker placement times and the times recorded in execution reports that the brokers provided to Fidelity, with the majority of recorded times at the top block level within one minute of precise agreement and over 80% of recorded times within five minutes of precise agreement. **Redacted** In addition, CRA compared the time of placement from Fidelity's internal trade history records with the time of placement in

Fidelity's audit log, and found that 98% of the blocks had broker placement times that exactly matched the time of the first-placed tranche recorded in the audit log, and 99.96% of all blocks had placement times within five seconds of the first-placed tranche recorded in the audit log. **Redacted**

Fidelity has criticized CRA's "implementation shortfall" approach to measuring a trader's performance with a broker in a particular trade by contending that the better measure of relative quality of execution performance is the "AVWAP" measure Fidelity has used in determining a portion of the performance-based component of its traders' compensation. The AVWAP measure compares the price at which a trade was completed against the stock's Available Volume Weighted Average Price for the period between the trader's first receipt of the order from the portfolio manager and the end of the trading day. **Redacted**

The AVWAP measure has the advantage that by looking at an average of share prices, it is less susceptible to the vagaries of sudden price movements.

Nevertheless, CRA has made a persuasive case that its proposed "implementation shortfall" approach is preferable. CRA has pointed out that traders' performance between the times they receive an order from a portfolio manager and the times they place a corresponding order with a broker – a period included within Fidelity's AVWAP analysis but not within CRA's implementation shortfall analysis – does not bear on the performance of a tainted trader-broker pair. **Redacted**

CRA has also identified substantial professional literature crediting the merits of the implementation shortfall approach and discussing how readily AVWAP-based performance measures can be "gamed" to skew reported results. Although Fidelity has suggested that it is unfair to

measure tainted traders' performance with tainted brokers using criteria different from that which determined the traders' compensation (and that consequently motivated traders' actions at some level), our mission is to determine possible harm to the Funds: Implementation shortfall, which focuses on broker performance, appears to be a better method of assessing that potential harm.⁵

Fidelity's further contention that broker placement times on which CRA relies should not be considered reliable because placement times entered by hand rather than mechanically are too susceptible to error, and because much can happen to a stock's price within the broad five minute window that CRA has accepted as close enough to support a finding of reliability, has only limited validity. While every instance of tolerating approximations undeniably introduces additional possibility for error, acceptance of a time range of up to five minutes as indicating that Fidelity's broker placement times are generally reliable at the block level should not alter the ultimate results unless there was a difference in accuracy rate between tainted traders' recorded order placement times with tainted brokers and the same traders' recorded placement times for other trades, *and if*

⁵ Fidelity has also suggested at various times that it would be irrational for traders to place trades with inferior brokers at poorer execution costs in recompense for TEGG, because the poorer execution would adversely affect traders' compensation. This point would only have force if traders believed the consequences of directing order flow to a less high performing broker would adversely affect their compensation in an amount greater than the value to them of the TEGG that stimulated those trades. CRA has pointed out in its analysis, **Redacted** that even if a tainted trader obtained a trade price from a tainted broker that was \$5 million worse than the price that he could have obtained from an untainted broker, that poorer performance would have resulted in a direct compensation cost to the trader of only about \$157.42 to \$1465.23 in pre-tax compensation depending on whether the trader had already achieved maximum bonus levels based on other trades. The TEGG many traders received was substantially more valuable than that. (We also note that factors besides the formula referred to herein affect a trader's compensation and career prospects).

that difference in accuracy affected measures of execution cost. There is no indication or reason to suspect that any such differences existed.

2. Comparing Tainted Relationship Performance with Untainted Performance

Once CRA was able to generate data respecting the execution costs and implementation shortfall outcomes for all trades between tainted traders and tainted brokers during the period of identified taint, it sought to compare these results against the implementation shortfall results the same traders could have been expected to obtain by placing the trades with untainted brokers. This effort required two steps: (i) determining the tainted traders' execution costs in all of their trades with untainted brokers, then (ii) using statistical regression techniques to compare the results of these untainted trades with the results of those traders' tainted trades, in ways that statistically accounted for a broad range of possible differences between the benchmark tainted relationship transactions and the untainted relationship transactions to which they were being compared. CRA applied this process of comparison to 239,291 trades made by the thirteen traders identified as "tainted," after excluding about 135,000 trades that involved uncertain data or were otherwise not effectively comparable. **Redacted**

Redacted

Fidelity's experts have suggested, in the early stages of the process, that the more appropriate comparison would be between each tainted trader's performance with the corresponding tainted broker and *all* untainted traders' implementation shortfall performance, not just between the tainted trader's performance with the tainted broker

Redacted

and the same trader's performance with untainted brokers. Fidelity's proposed comparison could readily obscure execution quality impairment, though, because several of the traders who were the most substantial recipients of improper TEGG were also among the highest performing Fidelity traders overall. The Funds were entitled to these traders' best work. Poorer performance by these traders with tainted brokers than they would have obtained in an environment free from taint would support a finding of execution quality harm even if that performance was still stronger than less skilled traders achieved with untainted brokers.

3. CRA's Regression Analysis

The architecture of the regressions CRA designed to compare the excess execution costs of trades by tainted pairs against what could have been expected without taint is exceedingly complex, and is described in CRA's report. **Redacted** In its essence, the goal of the regression analysis was to identify and process variables between trades, to make them as statistically comparable as reasonably possible, and then to look at the resulting performance comparisons from a number of alternative perspectives to see if they individually or collectively indicate a range of statistically probable implementation shortfall deficits for the tainted relationships. CRA's regression architecture, and in particular its sets of control variables, sought to take statistical account of three broad categories of potential differences requiring adjustments to make non-identical trades statistically comparable: differences in (i) types of trades,

(ii) properties of the stock being traded, and (iii) trading environment at the time of the trade.

As detailed more fully in CRA's report, CRA's recognition of the particular attributes of different types of trades led it to apply control variables for:

(i) relative size of the trade as compared to average adjusted stock volume; (ii) the dollar value of the placement; (iii) the degree to which capital was committed to the trade; (iv) whether the trade was a sale or purchase; (v) whether the broker was a core or non-core broker; (vi) whether the trade was placed with more than one broker; (vii) during which half-hour of the trading day the trade was placed; as well as (viii) a cubic polynomial variable to capture the interrelationship of the principal traded, the total shares traded in the stock on the day of the trade, and the price of the stock. **Redacted**

To account for differences in stock properties, CRA included control variables for:

(i) the market capitalization of the stock; (ii) the reciprocal of the stock price; (iii) the turnover of the stock, measured in terms of average volume over outstanding shares; (iv) the degree to which the stock's movement correlated with the market movement over the previous twenty trading days; (v) the degree to which the stock had moved independently of the market over the same period; (vi) the exchange the stock traded on; and (vii) the stock's industry sector. **Redacted**

To limit the confounding effect of differences in trading environments, CRA controlled for:

(i) the return on the stock price; (ii) the market return; (iii) the volume of the stock relative to the volume of the market as a whole; (iv) volatility measured as the difference between the highest and lowest NBBO mid-points; (v) volatility measured as the standard deviation of NBBO mid-points; and (vi) volatility measured as the absolute value of return on NBBO mid-points. **Redacted**

C. CRA's Various Approaches to Considering Execution Quality Harm

Rather than rely on a single regression to assess possible execution quality harm, we asked CRA to look at the data in several different ways, because each seemed potentially informative and because viewing the data in different ways could help indicate the degree to which changes in methodology affected the results. CRA obtained and reported results under each variant of the following frameworks (some of which reflected inputs from Fidelity's experts):

1. Benchmarks of Trade Performance. CRA recognized that traders' aggregate performance results might vary depending on whether trading volumes with particular brokers were measured by number of orders, by dollar value of Fidelity placements or by number of shares placed with the brokers. Number of shares placed seemed potentially the most informative measure, since a trader seeking to reward a broker for TEGG might have been expected to focus on the number of shares placed because commissions were calculated on that basis. CRA also looked at the other measures because different traders and brokers might have measured their business with each other in these ways.

2. Equally Weighted vs. Principal-Weighted. The "equally-weighted" regression approach assumes that the extra cost (or benefit) associated with each trade routed to a TEGG-providing broker is a constant number of basis points. The "principal-weighted" approach allows for the possibility that this extra cost (or benefit) might vary according to the dollar value of the trade. CRA viewed each of these measurement approaches as potentially informative, although the equally weighted measure seems

somewhat more hinged to likely trader behaviors respecting tainted trades. **Redacted**

Redacted

Redacted

3. Top Block vs. Creeping Block. Initially CRA measured all broker performance based on an assumption that all trades in a block were placed with brokers at the time of the first trade in the block. As CRA learned about block placements made in increments and found the records of these “creeping block” trades in Fidelity’s audit logs, CRA concluded that it should measure performance on that basis, too. Because the creeping block measures of broker placement time are more closely tied to the times when traders actually gave specific orders to brokers it would appear to be a better measure of broker performance. Top block measures may still have some informative value, though, if the traders told the brokers about entire blocks when placing the first tranche of a creeping block, or to the extent broker performance on the first tranche affected the timing of placement of later tranches. **Redacted**

4. Adjustments for Untainted Broker Heterogeneity. CRA suggested and **Redacted** accepted that it would be preferable to take account of differences among untainted brokers, rather than to treat all brokers as identical, through an adjustment for untainted broker heterogeneity. Adjusting for the variations among the untainted brokers’ performances reduces the risk that any identified discrepancy in execution cost between tainted and untainted pairs might be due to differences in the skills, expertise, specialization, brokerage firm, or trading platform of the untainted pairs. When the regression analyses are adjusted for the differences among untainted brokers,

Redacted

they provide a better sense of both the degree to which TEGG may have affected execution cost and the confidence that can be attached to that measure. CRA calculated results with and without this adjustment, although it concluded (as seems reasonable) that the results after making the correction would appear more reliable. **Redacted**

Redacted

5. Controls for Stock Return. CRA wrestled with the issue of how to segregate differences in execution performance based on trader-broker skill at placing trades from differences in performance attributable to market moves during the period between order placement and execution. As one approach to addressing this issue, CRA added a variable that adjusted performance results based on differences between stocks' quoted market prices at the time of order placement and at the time of execution. CRA understood, and **Redacted** has correctly pointed out, that this adjustment presented reliability concerns. Those concerns arose because the market moves for which this control was making compensating adjustments could have been caused by the trades being looked at, rather than by external market forces. CRA nevertheless believes it is useful to look at the regression results both with and without consideration of this variable.

CRA ultimately has not identified a unitary measurement approach that it believes yields the definitive benchmark measure of possible execution quality harm. While different potential approaches have greater or lesser value, there is some value in looking at all of them, not only because they show the consequences of considering different measurement approaches but also because they illustrate the tendency of these variables –

Redacted

the most substantial and important ones CRA could identify – to alter the measured results only within a relatively narrow range.

D. The Results of CRA’s Regression Analysis

1. Overall Results

Table A below summarizes the results of CRA’s regression analysis using all of these different approaches, as applied to creeping blocks, using the NBBO mid-point between the bid and the ask quotations as the price benchmark. **Redacted**

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Each set of results is presented in two ways⁶: (i) by identifying the dollar figure for estimated harm that emerged from the statistical regressions, which corresponds with the center of the bell curve identifying the range of possible outcomes; and (ii) by identifying the “confidence interval” attached to that estimated harm figure, presented as the dollar figures at the lower and upper limits of the bell curve. Those upper and lower limits correspond with two standard deviations from the estimated harm figure, and thereby reflect the 95% confidence level widely viewed as corresponding with statistical significance.

⁶ For reasons set forth below, we ultimately relied upon a version of the creeping block analysis calculated by valuing buys at the ask price and sales at the bid price.

Redacted

Comparison of Tainted Broker to Untainted Brokers Based on	Stock Return from Placement to Last Execution Plus 5 Mins	Estimate of Overall Impact (Millions)	Confidence Interval			
			Without Adjustment for Untainted Broker Heterogeneity (Millions)		With Adjustment for Untainted Broker Heterogeneity (Millions)	

Equally Weighted

Number of Orders	No	\$7.5	-\$1.8	to	\$16.9	-\$6.6	to	\$21.7
Dollar Value of Placement	No	\$11.9	\$1.9	to	\$21.8	-\$1.9	to	\$25.6
Number of Shares	No	\$12.5	\$2.3	to	\$22.8	-\$1.5	to	\$26.6

Number of Orders	Yes	\$7.6	\$0.2	to	\$14.7	-\$5.2	to	\$20.3
Dollar Value of Placement	Yes	\$14.7	\$7.3	to	\$22.0	\$2.7	to	\$26.6
Number of Shares	Yes	\$15.3	\$7.8	to	\$22.8	-\$3.2	to	\$27.3

Principal Weighted

Number of Orders	No	\$31.6	\$10.4	To	\$52.7	\$5.1	to	\$58.0
Dollar Value of Placement	No	\$9.5	-\$6.7	To	\$25.7	-\$11.9	to	\$31.0
Number of Shares	No	\$10.5	\$6.0	To	\$27.0	-\$11.0	to	\$32.0

Number of Orders	Yes	\$29.0	-\$2.1	To	\$45.8	-\$9.1	to	\$55.8
Dollar Value of Placement	Yes	\$14.0	\$1.2	To	\$26.2	-\$7.6	to	\$33.5
Number of Shares	Yes	\$14.1	\$1.3	To	\$27.5	-\$7.3	to	\$36.1

While each of the mathematical results summarized in Table A speaks for itself, the collection of results permits three general observations:

1. In almost all instances (and particularly in the instances involving the measurement approaches that seemed most reliable), the statistical regression yielded an estimate of some adverse effect on execution performance from tainted traders' activities with tainted brokers – with estimated levels generally ranging between \$7.5 million and \$31.6 million, and a very general clustering of results around about \$14 million.

2. In several instances, the bottom number in the confidence interval at a 95% confidence level is at or below zero. As a matter of statistics, this result means, in each case where it appeared, that the statistical results preclude a rejection of the “null hypothesis” of zero harm – or, in more colloquial terms, preclude a finding that harm occurred at a 95% confidence level. On the other hand, the fact that the bottom ranges of about half the confidence intervals are above zero points away from the hypothesis that no harm occurred.

3. The top ends of the confidence intervals for the various measurement approaches ranged between \$14.7 million and \$58 million, with some appearance of general clustering (particularly for the most reliable measurement approaches) in the general vicinity of \$25 million. As a statistical matter, the regressions identify these outcomes of relatively substantial harm as no less likely than the zero harm (or net benefit) figures at the other end of the confidence interval.⁷

⁷ As an additional check, we referred to two adjustments proposed by **Redacted** to CRA's methodology: **Redacted** ran CRA's analysis (i) additionally controlling for certain broker effects and (ii) controlling for broker effects, stock and day, and revising certain benchmark data. The upper 95% confidence interval for the first of these was \$40.2 million; the upper 95% for the second was \$34.3 million. The fact that **Redacted** proposed adjustments should not, of course, be taken to imply that he endorses CRA's analysis, but the similarity in results was noteworthy.

E. The Clustering of Indications of Harms and Benefits Among Tainted Pairs

In an effort to test the significance of the apparently consistent pattern of positive estimates of harm regardless of which different approach to measurement was employed, CRA asked, for each of its different measurement approaches, how many of the results from testing individual tainted pairs showed harm from trading in the tainted relationship (and whether that harm was “significant” measured at the 95% confidence levels), and how many showed no harm or benefit (and whether that benefit was “significant”). The results are summarized in Table B. **Redacted**

Redacted

Comparison of Tainted Broker to Untainted Brokers Based on	Stock Return from Placement to Last Execution Plus 5 Mins	Tainted Pairs with Harm		Tainted Pairs with Benefit	
		Number of Pairs	Number of Significant Pairs	Number of Pairs	Number of Significant Pairs
<u>Equally Weighted</u>					
Number of Orders	No	27	6	15	0
Dollar Value of Placement	No	31	7	11	1
Number of Shares	No	31	7	11	0
Number of Orders	Yes	29	7	13	0
Dollar Value of Placement	Yes	32	9	10	0
Number of Shares	Yes	33	9	9	0

Principal Weighted

Redacted

Comparison of Tainted Broker to Untainted Brokers Based on	Stock Return from Placement to Last Execution Plus 5 Mins	Tainted Pairs with Harm		Tainted Pairs with Benefit	
		Number of Pairs	Number of Significant Pairs	Number of Pairs	Number of Significant Pairs
Number of Orders	No	31	3	11	0
Dollar Value of Placement	No	28	4	14	0
Number of Shares	No	29	4	13	0
Number of Orders	Yes	33	5	9	1
Dollar Value Placement	Yes	30	4	12	0
Number of Shares	Yes	31	4	11	0

The results were remarkably consistent. Among all the measurement approaches within the “equally weighted” group of results, for example, between 27 and 33 of the 42 tainted pairs reviewed had results indicating harm (of which between six and nine were significant), while pairs with individual results showing no harm or benefit ranged between nine and fifteen (of which only one was “significant”).

These clustering results appeared to indicate a strong tendency for the statistical analysis to indicate the probable presence of at least some level of poorer implementation shortfall in the tainted pairs than would have been expected in an environment without taint, even despite the zero and negative harm results identified as mathematically possible at the bottom of the statistical confidence interval. **Redacted**

Redacted

Redacted

F. Sensitivity Analyses

CRA devised on its own, and **Redacted** urged it to consider, a number of alternative measurement approaches to be applied to its data. While CRA has not accepted any of these approaches as superior to the approaches it employed, CRA performed the regression analysis using these proposed approaches, in effect as a sensitivity test to see if they yielded significantly different results from the ones CRA obtained. These alternative analytical approaches included the following:

- Without Outliers: CRA performed variations on its analyses that trimmed outliers from the results at different levels of deviation from conventional results. This is a typical analytical technique, to avoid allowing results to be skewed by a small number of incongruous, unrepresentative and extreme outcomes. Trimming outliers generally had little effect on the calculations of estimated overall adverse impact, but also tended to narrow the confidence intervals. **Redacted**
- Employing Stock-Date Controls: **Redacted** has contended that CRA's various control variables are inadequate to make different stock trades effectively comparable against each other, and that the only fair comparison would be between trades in the same stock and on the same dates as individual trades between tainted traders and tainted brokers. CRA has not agreed with this view, on the bases that (i) **Redacted** **Redacted** proposed approach excludes a potentially pivotal set of trades – where a tainted trader placed all purchases or sales of a particular stock with only a tainted broker on a particular day; (ii) CRA believes its control variables permit comparability; and (iii) looking only at this much smaller subset of trades creates much more difficulty in achieving statistically significant results, and correspondingly widens significantly the confidence interval attached to such results. Nevertheless, CRA conducted the analysis to determine the results of a regression including a control for stock and date. **Redacted**
- Without Relative Capital Commitment: CRA calculated their results excluding the associated control variable for relative capital commitment because some concerns had been raised over the accuracy of the data obtained from Fidelity that identified capital committed trades. **Redacted** **Redacted**

- AVWAP from Placement Time: In response to Fidelity's repeated suggestions that an AVWAP measure is preferable to an implementation shortfall measure in evaluating the execution performance of any individual trade, CRA repeated its analysis using AVWAP costs from broker placement time. This is not the same as Fidelity's AVWAP measure for tracking trader performance, which begins the clock for AVWAP measurement at the time of the trader's receipt of orders from the portfolio manager rather than from the trader's later placement of orders with the broker, but it does adopt the averaging approach to assessing performance reflected in the AVWAP measure. **Redacted Redacted**
- Modified Benchmark for Order Placement Price and Execution Price: **Redacted** has criticized CRA's use of the NBBO mid-point between bid and ask quotations as the benchmark share price at the time when a trader placed an orders with a broker, and suggested using the ask price when Fidelity was buying shares and the bid price when Fidelity was selling shares, contending that Fidelity's trading methods and its trades' size and capacity to affect the market warranted the use of a side-specific benchmark.⁸ **Redacted** Professor Ready agreed with this and it showed a somewhat higher level of possible harm at the upper range of the confidence interval. Since both **Redacted** and Ready agreed that this approach was more statistically valid than using the NBBO midpoint for all trades, we believe it appropriate to use these results to calculate the payment to be requested from Fidelity. The results of this analysis are as follows:

⁸ CRA recently received clean copies of the files and programs for **Redacted** analysis of this issue, and is continuing to explore and identify the source of differences in their results on this point.

Comparison of Tainted Broker to Untainted Brokers Based on	Stock Return from Placement to Last Execution Plus 5 Mins	Estimate of Overall Impact (Millions)	Confidence Interval					
			Without Adjustment for Untainted Broker Heterogeneity (Millions)			With Adjustment for Untainted Broker Heterogeneity (Millions)		
Number of Orders	No	\$11.1	\$0.6	to	\$21.5	-\$2.6	to	\$24.8
Dollar Value of Placement	No	\$16.1	\$3.7	to	\$28.4	\$1.4	to	\$30.7
Number of Shares	No	\$16.9	\$4.1	to	\$29.7	\$1.8	to	\$32.0

The results of these various analyses are summarized in CRA's report **Redacted**
Redacted In general terms, they show a continuation of the consistent pattern of positive numerical estimates of harm, with lower ends of the confidence interval at zero or below and the upper ends of the interval in the tens of millions of dollars (with a particularly wide confidence interval associated with controlling the stock and date, as was predictable). To the extent these different suggested measurement approaches are viewed as a form of sensitivity tests applied against CRA's analysis, they broadly reinforce the analysis.

G. Unavoidable Limitations of the CRA Analysis

Despite the thoroughness and professionalism of CRA's analysis, its conclusions are burdened by certain limitations that no amount of further statistical analysis could fully overcome. These include the following:

- Presumption of Taint: CRA's analysis compares *all* trades handled by each tainted trader/broker pair against the trades placed with untainted brokers. This approach assumes for purposes of the analysis that *every* tainted trade placed with a tainted broker was affected by TEGG. This analytical presumption does not correspond with human experience or common sense. Although it is reasonable to conclude that receipt of improper TEGG increased the volume of trades placed with tainted brokers or affected the timing of the trades (as described more fully in connection with the analysis of possible order flow harm below), there is no basis for concluding that *but for* TEGG, the tainted traders would have placed no trades with the tainted brokers. As a result, CRA's regression analysis inescapably included trades not individually motivated by TEGG in the set of "tainted trades" for which CRA measured the net excess costs. There is no available way of excluding these untainted trades from the tainted ones, because it is impossible to say which particular trades were influenced by TEGG. The execution performance results from analyzing only trades truly influenced by TEGG might be quite different, and possibly considerably worse, but those trades cannot be isolated for analysis.
- Definition of Tainted Pairs: When the SEC identified "tainted" relationships between brokers and traders, it did so on an individual basis, concluding that individual traders on Fidelity's equity trading desk had conflicted relationships with individuals employed by various brokerage firms. CRA's analysis did not adhere to this definition of taint, but instead looked at all trades between individual tainted traders and the entire firms at which the individual tainted brokers worked. For example, Thomas Bruderman of Fidelity and Kevin Quinn of Jefferies had a tainted relationship, but CRA treated all trades that Bruderman placed with Jefferies as tainted. This approach was entirely reasonable to the extent that a trader placed trades only with a single broker at a firm, or only with brokers who were part of the TEGG process or for whose performance the broker causing the tainted relationship would receive some credit. That may have covered a substantial majority of tainted pairs, but a potential factual gap in CRA's assumptions nevertheless remains.
- Confounding Factors: Even with the array of control variables CRA used to take account of the differences caused by variations in the properties of stock, trading environment and trade, it is impossible to mute entirely the noise created by the enormous range of factors that can affect the cost of a trade. The depth of the market, mercurial price changes, unexpected news, volume, liquidity, trader instructions, other investors, discretionary choices and numerous other human and market-based interventions all had

the capacity to affect execution cost. As the confidence intervals for each estimate of impact confirm, the regression analysis cannot completely account for these confounding factors.

While these limitations in CRA's analyses are undeniable, and necessarily affect the confidence that can be attached to its conclusions, certain other critiques of CRA's analysis by Fidelity and **Redacted** do not as clearly undermine that analysis. Most significantly, **Redacted** contention that CRA's analysis is fundamentally flawed because it did not include a control for broker effects – examining whether traders performed worse with tainted brokers than untainted traders did with those brokers – is unpersuasive for both logical and statistical reasons. Given both trader and broker specialization, there is no reason to believe that each broker occupies the same relative cost position across all traders, because traders used brokers in different ways and because brokers themselves may have altered their approaches when dealing with different traders. Even if certain brokers were more expensive when used by tainted and untainted traders alike, it would be inappropriate to exonerate the tainted traders who directed orders to those brokers because of TEGG for the excess execution costs they incurred simply because trading with those brokers generally entailed higher costs. CRA tested the assumption that each broker had the same relative cost position across all traders and found it to be rejected by the data. **Redacted**

H. Conclusions Respecting Possible Execution Quality Harm Based On
CRA's Statistical Analysis

1. The Statistical Evidence Standing Alone

Taken in the aggregate, the outcome of CRA's statistical analysis standing alone suggests, but does not prove, harm to the Funds. At one level, the numerical outcomes from looking at the data in multiple different ways fall within a sufficiently narrow range to suggest that those results collectively have a measure of self-reinforcing robustness. The single-number center of the bell curve of statistically likely outcomes is consistently positive within a relatively narrow range, and the array of harm vs. benefit results on an individualized tainted pair basis is heavily weighted in the direction of showing weaker execution performance in tainted trader-broker pairs than the statistics suggest would have occurred from trading in an entirely untainted environment.

While there is some temptation to view the scale of results reflected in CRA's report as so small in the context of Fidelity's massive trading activities as to fall within the category of probable rounding error, a rough benchmarking suggests that these results fall within the range of intuition and expectation about what the scale of execution quality harm from trading tainted by TEGG considerations might have been. In very round terms, the dollar value of the over 160,000 trades CRA considered in its analysis was about \$525 billion. The 19,000 trades executed by the 42 tainted broker-trader pairs aggregated approximately \$63 billion in value. Again in very round terms, total execution costs associated with trades made by the tainted traders generally averaged approximately 44 basis points. This suggests that the total execution costs of the trades

by the tainted pairs amounted, very roughly, to \$280 million. A finding that the CRA data statistically suggests possible harm from tainted trading of about \$15 million would suggest this harm amounted to almost 6% of execution costs.

As already indicated, though, there is an obvious danger, recognized by CRA itself, in attaching too much conclusive weight to CRA's statistical results. The data CRA has processed reflects assumptions, estimates and analytical leaps that affect its ultimate reliability, and the consistent inclusion of zero harm results in the confidence intervals surrounding CRA's estimates would be generally recognized to preclude a finding of harm at a 95% confidence level. Because of all of these limitations, the statistical evidence alone does not support a finding of an amount of harm attributable to trading motivated by TEGG.

2. Considerations In Addition To Statistics

The statistical record does not stand alone in this matter, though. Instead, the statistics are properly viewed through the lens of the acknowledged substantial receipt of TEGG, violations of Fidelity policy that supervisors tolerated and sometimes even joined, email records indicating substantial attention to TEGG events and memorializing suspicions from colleagues that these events were influencing trading decisions, and identified individual "event driven" trades in which a broker appeared to have been selected for reasons related to TEGG and the trade turned out badly (as discussed in Section IV below). In circumstances like these, even in the context of a court proceeding where amounts of harm must be proved by a preponderance of the evidence, "it is well-

established that the breaching defendant, who has created the uncertainties as to damages, must bear the risk of these uncertainties.” *Western Geophysical Co. of America v. Bolt Assoc., Inc.*, 584 F.2d 1164, 1173 (2d Cir. 1978). Here, Fidelity clearly breached its duty to the Funds to ensure that its traders acted solely for the benefit of the Funds.

Courts have recognized that inconclusive evidence can be considered in fixing an amount of damages, when other evidence in the record supports a finding of probable harm. As the United States Supreme Court has explained, “there is a clear distinction between the measure of proof necessary to establish the fact that [a] petitioner had sustained some damage, and the measure of proof necessary to enable the jury to fix the amount.” *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931). Where the injury “itself is of such a nature as to preclude the ascertainment of damages with certainty, it would be a perversion of fundamental justice to deny all relief to the injured person In such cases, while the damages may not be determined by mere speculation or guess, it will be enough if the evidence show (sic) the extent of the damages as a matter of just and reasonable inference, although the result be only approximate.” *Id.*

Viewed from this perspective, the combination of the statistical record, for all its limitations, and other evidence creates a situation in which reaching a conclusion of zero harm would be entirely unsatisfactory. The 95% confidence level that is a recognized indicator of “statistically significant” conclusions is, as CRA has observed in its report, highly protective of the hypothesis of no effect. **Redacted** Only a very high level of statistical proof will support a conclusion that a particular action caused an effect

under this rigorous standard. There are many known contexts, though, where less than this level of confidence is required to take actions based on the perception of risk that an action may cause a result. In matters of public health, for example, the inability to say that a particular activity or product is dangerous at the 95% confidence level, because of the presence of tremendous numbers of potentially confounding variables in a study of potential harm, does not always prevent authorities from taking actions to avoid a possible risk.

The particular context of this investigation presents an additional reason for concluding that doubts about possible execution quality harm should be resolved in the direction of ensuring full compensation to the Funds. The dynamics underlying this investigation involve several layers of fiduciary duty, including the fiduciary duties that both the Independent Trustees and Fidelity owe to the Funds and their shareholders. It is a well recognized principle of equity that in cases of breach of fiduciary duty, the remedy should presumptively include “the restoration of the trust beneficiaries to the position they would have occupied but for the breach of trust.” *Donovan v. Bierwirth*, 754 F.2d 1049, 1056 (2d Cir. 1985). While this principle does not require a court seeking to measure harm in the context of a breach of duty to abandon requirements of proof, it does support fiduciaries in seeking to resolve uncertainties in the direction of ensuring that beneficiaries are fully compensated for any breach.

As this investigation has proceeded, the Independent Trustees have indicated that they want a high level of assurance that any remedy they direct Fidelity to employ will leave the Funds fully compensated for possible harms. Since the effort to protect the

Funds falls within the scope of the Trustees' duty of care and duty to "exercise good faith and act solely in the interests of the beneficiaries" of the Funds, *Rutanen v. Ballard*, 678 N.E.2d 133, 139-40 (Mass. 1997), the effort to resolve doubts in favor of that protection also falls within the scope of those duties.

3. Other Considerations In The Assessment Of Execution Quality Harm

The effort to fix an appropriate compensation measure to ensure full repayment of the Funds for any possible harm incurred from trading decisions made based on TEGG also requires consideration of two other points: the period of time over which improper TEGG was received, and the "netting" issue.

The SEC's investigation, and CRA's analysis, run from January 2002 through the initiation of the SEC investigation and the responses to that investigation in October 2004. CRA has reported that Fidelity trading records for earlier periods may contain gaps, and, for reasons set forth above, this investigation has not sought to consider the presence or consequences of improper TEGG that may have influenced trading decisions from periods before 2002. No information learned in this investigation provides any reason for concluding with confidence, though, that the kinds of TEGG activities that surfaced for 2002-04 were entirely absent in 2001 or earlier periods. Although Fidelity's trading volumes before 2002 were much smaller than in 2004, and although there is some indication that Fidelity's trading desk underwent cultural shifts near the end of the last decade that suggest a lesser risk of improper TEGG activities in earlier periods, this

unresolved area of uncertainty presents another possible area of loss worth taking into account in assessing the amount Fidelity should be directed to pay.

The analysis of the data also requires conclusions about the extent, if any, that the repayment measure should take into account the indications in CRA's regressions that some of the tainted pairs had positive execution costs (indicating the possibility of harm to the Funds) while others had negative execution costs (indicating the possibility of benefit to the Funds). Apart from CRA's reporting of the array of performance results from individual tainted pairs, CRA's analysis otherwise looked at implementation shortfall only on a "net" basis, offsetting instances of apparent statistical harm with instances of apparent statistical benefit. An approach saying that a wrongdoer must compensate for all harms but may not get credit for benefits would yield significantly higher numbers.

Under the law of trusts, losses caused by a breach of duty cannot be reduced by any benefit that "accrued through another and distinct breach of trust; but if the breaches of trust are not separate and distinct, the trustee is accountable only for the net gain or chargeable only with the net loss resulting therefrom." Restatement (Third) of Trusts, § 213. Under this approach to determining whether to "net" results, "a fiduciary is liable for the total aggregate loss of all breaches of trust and may reduce liability for the net loss of multiple breaches only when such multiple breaches are so related that they do not constitute separate and distinct breaches." *California Ironworker Field Pension Trust v. Loomis Sayles & Co.*, 259 F.3d 1036, 1047 (9th Cir. 2001). A court ruling on an Investment Advisers' Act claim has similarly concluded that a plaintiff may not "recover

for losses, but ignore his profits, where both result from a single wrong.” *Abrahamson v. Fleschner*, 568 F.2d 862, 878 (2d Cir. 1977).

If it could be established with a reasonable degree of certainty that some traders who received TEGG did not allow it to affect their performance, and in fact had positive execution costs, it would be inappropriate to deduct their positive results from the losses incurred by other traders who did allow their receipt of TEGG to impact their performance negatively. The fact that one group of traders did not allow their receipt of TEGG to influence their performance would not mitigate the harm caused by the tainted brokers whose results were adversely impacted by their receipt of TEGG. Similarly, if one could prove that certain specific trades of an individual trader were the result of TEGG and resulted in higher execution costs to the funds, it would be inappropriate to net those losses with positive execution costs that the same trader had with the same broker.

Here, however, where we are relying on a concededly imprecise statistical analysis in which one would expect that in any random cross section of traders and trades some would have positive execution costs and others would have negative costs, a failure to net out the results would appear to be inconsistent with underlying assumptions of the analysis.

The alternative course of looking at each trade to see whether it had better execution costs or worse execution costs than a benchmark would take inadequate account of the reality that execution costs for any single trade are in some measure affected by happenstance outside any trader’s or broker’s control, and that, in a statistical

analysis, it is only in the aggregate, over time, that overall adverse effects from selecting a broker based on TEGG could emerge and be identified with any degree of reliability. Looking at aggregate performance of trader-broker pairs and declining to net at that level would not reflect a true application of the anti-netting rule, meanwhile, and again would seem too likely to reflect an element of arbitrariness. I specifically asked Professor Ready his views on this issue and it was his opinion that in a statistically valid analysis the gains and losses should be netted.

Nevertheless, the indication that the execution quality harms from trading based on TEGG would be higher than the potential levels reported by CRA if trades that appear to have had unfavorable execution outcomes were not offset by trades apparently having favorable execution outcomes provides an additional reason for directing Fidelity to compensate the Funds at a level corresponding with the high end of the range of possible harm outcomes identified at a 95% confidence level.

IV. Event-Driven Analysis

One alternative to treating every trade in a tainted trader-broker relationship as tainted is to seek to identify particular trades that seem to have been influenced by TEGG, and to measure the execution costs of those trades. Although we understood from the outset that it would be impossible to identify all trades that took place as a result of TEGG and segregate them from trades uninfluenced by TEGG, the exercise of identifying and seeking to analyze at least some TEGG-influenced trades seemed

worthwhile. We undertook to identify illustrative potentially “event-driven” trades, and to develop a sense of how readily such identifications could be made, in three ways:

1. We reviewed email and Bloomberg communications provided by Fidelity that referred to TEGG events. After locating some messages that appeared to refer to trades placed in gratitude for TEGG, we and CRA reviewed the relevant trading records and attempted to isolate the trades mentioned in the messages.
2. After identifying one highly significant trade (Tyco, discussed below) in this manner, we sought to expand the analysis by identifying the twenty dates when tainted traders placed the largest trades (over three million shares) with tainted brokers, then obtaining and reviewing additional email and Bloomberg messages from Fidelity’s archives surrounding each of these trades.
3. We directed CRA to generate a series of charts showing tainted traders’ weekly trading volumes with tainted brokers. We then enlisted Fidelity’s assistance in scrubbing Fidelity’s spreadsheets of all reported TEGG events to pinpoint the dates of major events for which dates were not clear, ultimately identifying the exact or approximate dates of about 100 of the most significant TEGG event dates in Fidelity’s records. CRA then superimposed these 100 events, by date, onto its charts of tainted traders’ weekly volumes with brokers who paid for these TEGG events, to look for variations in trading patterns in proximity to the TEGG events.

While these searches yielded a number of emails tending to confirm that specific trades or groups of trades were motivated by TEGG, the number of trades that would be identified in this way was small, and our follow-up work on the emails we found did not provide a basis for a conclusion that such TEGG-driven trades were generally characterized by inferior execution performance. Large numbers of trades may have been placed as a result of TEGG – or, as the next section strongly suggests, TEGG may have significantly affected order flows – but our analysis yielded no proof that the primary form of response to receiving TEGG was a single trade placed in thanks for a major TEGG event in close temporal proximity to the event. The significant exception

was the collection of January 30, 2002 trades in shares of Tyco, as to which the combination of trading records and contemporaneous email traffic provides a powerful illustration of the apparent capacity of TEGG to influence broker relations in ways that opened the traders to a host of adverse inferences when the trade went extraordinarily badly.

A. The Search of Emails and Trading Records to Identify Apparently TEGG-Driven Trades

Among the package of Fidelity emails provided to us early in our investigation – and characterized generally in previous reports to the Independent Trustees and the SEC as the “Greek-chorus” emails – we saw numerous statements by traders on the equity trading desk, largely having the tone of gossip, to the effect that particular traders were the recipients of extravagant TEGG from brokers, and that TEGG influenced relationships. A small number of these emails suggested a direct linkage between a trade and an instance of TEGG. *See, e.g.*, Jan. 25, 2002 Bloomberg message from Marc Beran to Steven Pascucci, SEC-FID-GG- 25074 (Exhibit 3) (“[n]ice SUNW order[.] That is the cost of US Open seats Saturday”); March 26, 2003 Bloomberg message from M. Beran to EQ Trading, SEC-FID-GG 25126 (Exhibit 4) (“I figure I owe ^{Redact}ed 3 orders to pay for my annual **Redacted** golf shirt”); June 6, 2002 Bloomberg message from Steven Pascucci to Kirk Smith, SEC-FID-GG 25081 (Exhibit 5) (“It is disgraceful how [Bruderman] and **Redacted** cherry pick orders and funnel them towards their social schedule . . . i.e. Fri nite Celts tix=OPWV order for ^{Redacte}d”). Those statements conveyed an unacceptable flavor of individual trades placed specifically to compensate brokers for providing TEGG.

Despite substantial effort, though, we were not able to trace these comments to TEGG-based trades.

In an attempt to expand the email review to search for other instances of discussions like those found in the Greek-chorus emails, we applied a broad collection of search terms to a search of emails written or received in the period surrounding the twenty largest trades in 2002-04 between tainted traders and tainted brokers – each over three million shares. That search revealed no instances in which traders admitted about themselves or expressed the view about others that the selection of a broker for a particular trade was a consequence of TEGG. Major trades (other than Tyco) may have reflected selections of a particular broker for reasons related to TEGG, but no such motivations were memorialized or reported by colleagues in Fidelity emails we reviewed.

The check of individual TEGG events against traders' weekly trading volumes to look for patterns of increased order placement around TEGG events similarly did not reveal any consistent pattern of detectable increase in trading volumes placed with tainted brokers around the time of TEGG events. In the overwhelming majority of instances, the weekly trading volumes in the periods just before and after major TEGG events seemed indistinguishable from the normal range of trading patterns. Once again, this does not mean that traders directed no trades to the brokers in recompense for TEGG, but only that any such compensatory trades generally did not reflect aberrations from the traders' general volumes of orders placed with those brokers.

Within this general result, though, the data did show some instances of what appeared to be escalations in trading volumes with TEGG-providing brokers around the

time of a TEGG event. Some of these apparent escalations appeared sufficiently consistent with the overall range of variation in the trader's volumes of placements with the broker over time that any assertion of linkage between the increase to a TEGG event would necessarily be equivocal. The same was true for instances when an apparent spike in trading volumes occurred several weeks before a TEGG event, since we could not say whether such spikes reflected early gestures of gratitude for an offer of TEGG that would not be enjoyed for a few weeks (as might have seemed very possible for an event involving several days' travel, for example), or were completely divorced from the future TEGG event. For each of these instances of possible TEGG-related escalation in volumes, CRA reviewed individual trades during the period of increased trading to look for single trades that appeared possibly motivated by TEGG, and to look at execution costs associated with these trades. This exercise proved inconclusive. It did not generally reveal either trades that could be clearly linked to TEGG or atypical execution costs in light of the circumstances surrounding the trade.

Of the roughly 100 largest TEGG events for which dates could be fixed, only twelve fell in close enough proximity to unusual increases in trading volumes placed with the TEGG-providing brokers to present a significant appearance of probably reflecting TEGG-related trades. For each of these twelve, CRA examined the particular trades connected with the significant increase in volume. This examination revealed only four large trades that appeared unusual. **Redacted** In each case, although the costs were low in absolute terms, they were surprisingly high given that the market was moving in a favorable direction during the trade. With each of these four

trades, as with the statistical analysis as a whole, the statistics were useful to show relative and directional impact, but could not hope to capture the entirety of the circumstances affecting any trade or stock during any particular day or week. To better understand the four unusually costly trades, we reviewed the media coverage of the stock during the day and week of the trade and found that each of the four trades took place when the stock being traded was experiencing unusual and significant stress. Even with the control variables, such atypical trading days and/or significant news releases are likely to have skewed the measure of (or ability to measure) the effect of TEGG on the execution cost of any particular trade.⁹ In all, the confounding factors for each of the

⁹ The four trades are as follows:

1. Bristol-Myers Squibb, traded by Bruderman/Jefferies on March 25, 2003: This trade occurred two days before BMS disclosed that the SEC had expanded its investigation into accounting issues, the day after key pharmaceutical analysts downgraded the stock from "buy" to "outperform" and the media reported that the CEO was losing the support of BMS staff, the week after a significant earnings restatement, and two weeks after BMS disclosed that it would revise sales by \$2.5 billion and restate its financials. The news reports also indicate that investors were skittish and unpredictable throughout the week because the invasion of Iraq had begun on March 20.

2. Motorola, traded by Donovan/Redacted on October 9, 2002: On the day of this trade, Motorola shares fell 15% to a ten-year low. Trading seemed to be driven by investors' anticipation of the third-quarter earnings to be released the following week. During the week of the trade, analysts described the market as "very nervous" and their reports convey their surprise at the sudden one-day decline and attribute it to bearish market fears, not stock-specific concerns. The day after Donovan's trade, the stock was up almost 10% after analysts came out in favor of Motorola, reassuring investors about liquidity and earnings predictions.

3. Microsoft, traded by Smith/Jefferies on October 20, 2003: This trade took place the Monday after Microsoft's Friday submission of a report on its compliance with the terms of its anti-trust settlement agreement with the federal government; the day after the trade, Microsoft's Office 2003 went on sale to the public. Investors, analysts and the media covered the Office 2003 release in detail, and reports contain quite a bit of speculation about how the software would be received, particularly since it was the first Office upgrade in two years and had been delayed several times. Microsoft announced earnings on the Thursday of the week of the trade, another highly anticipated event likely to have affected trading throughout the week.

4. Oracle, traded by Smith/Jefferies on November 20, 2003: During the week of the trade, there was significant media coverage of Oracle's \$7.3 billion hostile bid to acquire PeopleSoft. On the day of the

four suspect trades were so numerous and so substantial that we could not with any confidence attribute the unusual cost of the trades to inappropriate broker selection brought about by TEGG, although the possibility could not be excluded entirely.

B. The Tyco Trade

The most striking example of ways TEGG can affect a trade that emerged from our investigation of possible trades driven by TEGG events related to a collection of trades on January 30, 2002, in which Edward Driscoll placed orders to buy eight million shares of Tyco with **Redacted** just days before the broker flew him by private jet to the Super Bowl in Houston, Texas. Driscoll himself linked the trade to TEGG, stating, "The good news is, the TYC order paid for **Redacted** jet." Jan. 30, 2002 Bloomberg Message from Edward Driscoll to **Redacted**, SEC-FID-GG 25024 (Exhibit 6). Driscoll's decisions on the Tyco trade resulted in a potential total cost to the Funds of as much as \$18 million,¹⁰ and the execution cost of these trades, as measured on a creeping block basis, amounted to over \$6 million. These unusual costs resulted primarily because Driscoll placed only a portion of the orders he had received from

trade, the European Commission announced that it would conduct a second-phase review of the bid, and the day before the trade, the Delaware court denied Oracle's motion to enjoin PeopleSoft's rebate plan and investors viewed the denial as a setback for the takeover bid.

¹⁰ This cost is calculated using a method that CRA has labeled "Orders Available," which assigns a benchmark price to all shares available to Driscoll at the time he first gave an order to purchase any portion of those shares to the broker. As such, the cost estimate includes the effect of Driscoll's delay in placing the Tyco orders with **Redacted**, as well as **Redacted** execution performance. If the execution price of the trade were measured against the NBBO ask quote at the time of the initial placement (CRA's "Major Block" method), the cost would be \$15.57 million, if measured against the ask quote at the time of placement of each tranche of shares (CRA's "Creeping Block" method), it would be \$6.02 million. **Redacted**

portfolio managers immediately during the morning when he received those orders, and because there were delays in executing orders placed with **Redacted** in the period following a noontime announcement of a substantial stock buyback during which the share prices rose steeply. While it is impossible to say whether and to what extent any of this unusually high execution cost was attributable to the choice of broker, the mere reality of poor execution outcomes in a context where TEGG appears likely to have affected the choice of broker illustrates the kinds of risk of adverse inferences to which traders exposed themselves by entering into trades linked to provision of TEGG.

The details of the timing and placement of the Tyco orders are set forth in CRA's report, **Redacted**. Driscoll placed the orders not at once, but on a "creeping block" basis with **Redacted**, piecing out the purchases of 8,092,280 shares in a total of fourteen placements grouped into five main increments over the course of the day. Most of the orders were executed at prices reasonably close to the prices at the time the order was placed, but one order to buy over a million shares was not executed for about an hour and a half after it was placed at midday, during which the price rose significantly in response to the noon buyback announcement. The delay between the placement and execution was remarkable not only because of the dramatic increase in price, but also because of the extraordinarily heavy volume of trading in Tyco shares that day – the second day in a row that Tyco had set a stock exchange record for trading in a single issue.

Our inability to interview either Driscoll or **Redacted** about this trade has meant that we (like everyone else considering these Tyco trades) are left to speculate

about whether and to what extent the delay in executing Driscoll's order and other adverse execution results on this trade were the result of **Redacted** inadequate skill, poor judgment or mere errors in prediction of a type that even the best brokers can make), or of decisions by Driscoll to wait and see if the stock price stabilized that simply turned out wrong (as even the best traders' assessments sometimes do), or of other causes having nothing to do with broker selection. On the day of the trade, though, at least some Fidelity traders explicitly criticized Driscoll's handling of the order and choice of broker to execute it, with one commenting that "the order that [could] not get fukked (sic) up got fukked (sic) up," and another replying "colossally . . ." and later observing "poor broker selection . . . Superbowl (sic) trip should not affect judgment." *See* Bloomberg messages between Steven Pascucci and Kirk C. Smith, Jan. 30, 2002, SEC-FID-GG 25021 (Exhibit 7).¹¹

The Tyco trades arose in highly idiosyncratic circumstances. On both the day of the trade and the day before, Tyco had broken market records in volume of shares traded in a single issue. Two days before, the company had disclosed a \$20 million "finder's fee" payment to an outside director, and during the January 30 trading day the company

¹¹ Our review found, and Fidelity has stressed, that another trader, Thomas Bruderman, wrote to Driscoll during the afternoon of the trade to say "TYC -is the toughest 1 [one] week chart I have ever seen" (Jan. 30, 2002 Bloomberg message from T. Bruderman to E. Driscoll) and commented to third parties that Driscoll had done an excellent job in placing the Tyco trades, stating, "I think ESD is one of the best in the room . . . TYC is the toughest chart I have ever seen," *see* Bloomberg message from T. Bruderman to S. Pascucci, Jan. 30, 2002 (not produced to the SEC) (Exhibit 8). In context, though, the juxtaposition of these comments against the undeniably adverse results of Driscoll's execution of the order at far higher costs than Fidelity would have experienced if Driscoll had completed the order promptly upon receiving orders from the portfolio managers - a cost estimated to be over \$18 million - suggests that these comments may have reflected less of an objective evaluation than an effort to support a valued colleague after an extraordinarily bad day.

announced that the CEO and CFO would each buy back 500,000 shares of stock in response to investor concerns about earlier disclosures regarding other stock transactions by those executives. Earlier in the month, Tyco had announced a plan to divide into four separate companies, probably contributing to uncertainty and volatility of trading during a time when the telecommunications and electronics sectors in which Tyco had core businesses were already perceived as weak. In addition to these stock-specific factors undoubtedly affecting trading executions, one portfolio manager, **Redacted**, gave particularly explicit directions about the speed, quantity and price he wanted his order, and Driscoll apparently took these instructions into account in placing his early morning orders.

A review of the email and messages requested from Fidelity indicated that many untainted brokers emailed Driscoll throughout the day to inform him that they could fill substantial purchase orders, including several who contacted him prior to the placement of the first two orders for three million shares with **Redacted**. When we solicited Fidelity's views on these messages, **Redacted** **Redacted**, Fidelity responded by pointing out the lack of price information provided by the emails, the possibility that they were merely exploratory inquiries from brokers seeking to test the depth of the market, and the volatility of the market on the day of the trade. **Redacted** **Redacted** More significantly, Fidelity has argued that Driscoll's incremental purchases of shares through **Redacted** over the course of the day did not reflect an inability to find Tyco shares for sale during the period before the

midday announcement. Rather, Fidelity has said, Driscoll's approach plainly reflected a series of judgments about how and when to trade – made during the morning without foreknowledge of the price-jolting mid-day announcement, and then with the best professional guess about how the stock would move after the surprise announcement was made – of a type that exclusively reflected trader decision-making not linked in any respect to the broker's identity or skills.

These idiosyncrasies of the Tyco trade, while confirming that it is in some respects an outlier, also powerfully illustrate the problems that arise when traders placed a major transaction with a major provider of improper TEGG. Under these unquestionably complex conditions, another untainted broker might have done no better with the same orders. It remains probable, though, that Driscoll's choice of broker was influenced by TEGG, and possible that Driscoll's choice resulted in poorer execution than could otherwise have been achieved. Based on the record associated with this trade, our analysis identified Driscoll and **Redacted** as an additional tainted trader-broker pair along with the others identified by the SEC.

While Fidelity has urged that Driscoll's selection of **Redacted** to undertake the trade was justifiable on the merits, Fidelity's statements that **Redacted** was Driscoll's third-largest broker by commission and was well-suited to handle the trade because of its expertise in high-tech stocks and IPOs do not demonstrate that **Redacted** experiences in those areas made it the best broker or even a logical choice for this extraordinarily large and difficult trade. They also do not negate the powerful inference that Driscoll selected **Redacted** based on TEGG. The

combination of the trade's relative size (no other Driscoll trade with **Redacted** during the first six months of 2002 was more than half as large), its proximity in time to the free Super Bowl trip ^{Redacted} was providing, Driscoll's email comment about the linkage and the contemporaneous views of other traders provides no reason to give Driscoll or Fidelity the benefit of the doubt on this point.

The poor execution cost outcome of the trade may also have been entirely a function of unpredictable and uncontrollable market events confirmed with well-reasoned judgments by Driscoll of the type that even the best traders regularly make incorrectly. Once again, though, the taint associated with the use of a TEGG-providing broker so close in time to such an extravagant trip, coupled with the views contemporaneously expressed by colleagues that "poor broker selection" was a factor in the adverse outcome, leave that conclusion subject to doubts that the circumstances present no reason to resolve on Fidelity's favor.

V. Order Flow

A. The Channeling of Orders In Response to TEGG

Some Fidelity traders undisputedly directed order flow to tainted brokers as a result of TEGG. Fidelity conceded as much, **Redacted**, and the email and trading records of the equity trading desk confirm it. Once again, though, measurement of the scale of TEGG-affected order flow and assessment of its possible consequences for the Funds are subject to significant uncertainty and inexactitude.

1. Contemporaneous Communications

The contemporaneous electronic communications among traders confirm that it was common practice to direct order flow to brokers who provided TEGG. As one trader bluntly commented: “word is out that order flow is for sale.” *See* Nov. 15, 2002 Bloomberg message from Steven Pascucci to Kirk Smith, SEC-FID-GG 25106 (Exhibit 11). As noted above, other traders expressly stated on occasion that they or others had used order flow to “cover” TEGG, though we were not able, on the most part, to trace these comments to TEGG-based trades. Others on the desk were said to have engaged in “obvious patterns or loading up a broker, then disappearing on a golf trip, etc. . . It used to be Red Sox tickets and a dinner, now it’s private jets to the Masters.” *See* Feb. 20, 2003 Bloomberg message from Kirk Smith to 4th-EQ TRDG, SEC-FID-GG 25108 (Exhibit 12). One trader compared brokers’ strategies for building business with Fidelity to the strategies of successful baseball teams – buying powerful, expensive players or “showering” less expensive advantages on those just starting out:

“If you map out a strategy for ‘attacking Fido’ to maximize commission \$\$, it seems there are 2 strategies . . . Attack the generals, i.e., ingratiate yourself w/ the powerbrokers thru extensive use of the expense account (let’s call them the Yankees) who curry favor w/ [Bruderman, Donovan and DeSano]. . . or recruit youth early (let’s call them the A’s) by showering the youngsters with service and small \$\$ perks . . . the end goal is being in that sweetspot [sic] between 8 and 12 where there is good, steady, easy flow w/ little risk of capital blow-ups.”

Aug. 13, 2003 Bloomberg message from Steven Pascucci to Kirk Smith, SEC-FID-GG 25143 (Exhibit 13).¹²

Fidelity has argued that these emails should be evaluated in light of their authors' sworn deposition testimony before the SEC, as reported in deposition summaries provided by Fidelity, and that their comments were consistently in the nature of gossip, made in jest and without knowledge. For example, when asked about Beran's message referring to a 350,000 share trade placed with Jefferies to "cover" a trip, Pascucci reportedly denied that Beran was indicating that he had sent the trade to Jefferies to offset the cost of a ski trip he had taken with people from Jefferies, and Pascucci generally denied entirely knowing about anyone at Fidelity directing trades to a broker based on benefits received. Similarly, Smith described one of his emails about Horan's trip to the Super Bowl as a joke, testifying that he did not really think Horan was going to the Super Bowl with the brokers mentioned in the message and that he did not notice whether

¹² Smith is one of the twelve traders identified by the SEC as tainted, and was among the six employees who received a "final written warning" and was required to pay a fine of \$20,000. **Redacted**
Redacted Smith attended ten local events without the giver and without reimbursement, although Fidelity found that the conduct was mitigated by Smith's living near Foxboro Stadium, home of the Patriots and a frequent concert venue, so that tickets were often left for him to use or give away. He reported one instance of private jet travel where the giver was not aboard the aircraft, which he reimbursed only at a "relatively low level." Fidelity also noted that Smith had learned that the reimbursement check was not cashed and concluded that he "should have been more attentive to this." See SED-FID-GG-21225 (Exhibit 14). Fidelity did find that Smith was cooperative and forthcoming during the investigation. Pascucci received a written warning and was required to pay a fine of \$7,500. **Redacted**
Redacted
Redacted Pascucci had attended nine local events without the giver and without reimbursement, had reported one instance of private jet use (for which there were mitigating factors), and had accepted lodging on four occasions when the giver was present. See SEC-FID-GG 21218 (Exhibit 15). In addition to these disciplinary actions, Fidelity reduced the December 2005 bonuses paid and incentive shares awarded to both Smith and Pascucci.

Horan's order flow to certain brokers rose in connection with any benefits he had received.

How much weight one should give to post-event explanations given in the context of an ongoing investigation is a matter on which reasonable people may disagree. No reasonable amount of discounting attached to these emails, though, will alter the tone, consistency, duration, specificity and evident unhappiness that characterize the traders' contemporaneous comments about their peers' direction of orders to brokers for reasons apparently related to TEGG.

2. Overall Trading Records

While CRA's analysis of the trading volumes associated with tainted relationships did not yield evidence of a large number of identifiable single trades with tainted brokers that could be linked in time to single major TEGG events, that analysis did indicate, compellingly, that traders tended to direct significantly higher slices of their total business to TEGG-providing brokers than untainted traders provided to those brokers. CRA compared the percentage of each tainted trader's total volume placed with a tainted broker against the average percentage of all untainted traders' total volumes placed with that broker. In almost every instance, the tainted traders were directing a far higher than average percentage of their trading volumes to the broker that provided them TEGG.

Redacted For example, Jefferies & Co. handled 12.14% of **Redacted** volume, but only 2.13% of the average untainted traders' volume; **Redacted** **Redacted** handled 5.49% of Timothy Burneika's volume, but only 1.20% of the average

untainted trader's volume^{Redacted} handled 6.58% of Steven Pascucci's volume, but only a minuscule 0.07% of the average trader's volume. **Redacted** Other tainted trader/broker pairs showed a similarly striking discrepancy in order flow as a percentage of total shares or dollars traded.

B. The Value of Order Flow

Fidelity has never disputed that order flow plays a crucial role in Fidelity's dealings with brokerage firms, and that managing order flow to brokers is a key component of Fidelity's efforts to protect its shareholders' interests. **Redacted**

Redacted Order flow functions as the "coin of the realm." It can be used to reward brokers who secure particularly advantageous trades for the Funds and thus encourage them to do so again. It can be used to alleviate losses suffered by brokers who executed trades that benefited the Funds at the expense of the brokers' own profits (for example, by committing capital to a trade and suffering a hit when the market moved adversely). It can be used to assure loyalty, or can be withheld to express dissatisfaction with poor performance. While Fidelity expects and encourages its traders to use order flow for a variety of purposes, all of those purposes should further the single ultimate goal of securing the best possible value for Fidelity's shareholders. We have accepted Fidelity's point that obligations to seek "best execution" are fulfilled by establishing practices that achieve the best execution performance for Funds in the aggregate rather than in every individual trade, but the obligation to seek best execution nevertheless plainly requires a fixed focus on advancing shareholders interests. Order flow is a

valuable asset of the Funds, and any trader's redirection of order flow in recompense for TEGG is nothing less than a diversion of Fund assets.

C. Quantifying the Effect of Diverted Order Flow

The clarity of the conclusion that order flow is valuable and was sometimes diverted for traders' benefits based on their receipt of TEGG should not obscure the difficulty in discerning either the degree of the diversion or its economic impact. It is impossible, for example, to distinguish the portion of tainted traders' orders placed with tainted brokers in gratitude for TEGG from the portion placed because of legitimate business relationships, respect for the broker's expertise, or perceived unique qualification to handle those trades. The extension of TEGG may have developed alongside the development of a professional relationship founded on traders' belief that a broker was particularly skilled or particularly responsive, and even the increased trading levels CRA identified between tainted traders and tainted brokers cannot be reliably split between the TEGG-based component and the component the trader might have pursued in the absence of TEGG.

It is similarly impossible to quantify how order flow would have been used to the Funds' advantage if not diverted to brokers for personal favors. Redirection of order flow only caused harm to the Funds to the extent that directing that order flow to an untainted broker would have led to a reduction in costs to Fidelity of some kind, in the form of expense-savings (such as an acceptance of market risk through a capital commitment that otherwise would not have been provided), or some intangible

consideration (such as more attentive customer service or the assignment to Fidelity of a particularly skilled broker). Common sense suggests that some such benefits were undoubtedly lost as a result of tainted traders' misappropriations of order flow for personal use, but no reliable measure of the cost of such lost benefit can be identified.

VI. Recommended Compensation to the Funds

A. Responsibility and Authority of the Trustees and Fidelity

The Investment Company Act of 1940 "was designed to place the unaffiliated directors in the role of 'independent watchdogs,' who would 'furnish an independent check upon the management' of investment companies." *Burks v. Lasker*, 441 U.S. 472, at 484 (1979) (citation omitted). "Congress entrusted to the independent directors of investment companies, exercising the authority granted to them by state law, the primary responsibility for looking after the interests of the funds' shareholders." *Id.* at 484-85. Under state law, the Independent Trustees, as the trustees and fiduciaries of the Funds and their shareholders, have the authority and responsibility as trustees to "exercise good faith and act solely in the interests of the beneficiaries in administering the trust." *Rutanen v. Ballard*, 678 N.E.2d 133, 139-40 (Mass. 1997). Trustees are required to act using "sound judgment in the performance of their duties . . . [with] that degree of intelligence and diligence which a man of average ability and ordinary prudence under such responsibility would exercise in like circumstances." *Welch v. Flory*, 200 N.E. 900, 901 (Mass. 1936). Here, sound business judgment and prudence counsel in favor of resolving doubts in favor of the Funds.

As has been set forth in detail above, the statistical evidence cannot definitively establish the precise amount of the harm, if any, the Funds suffered from the traders' receipt of TEGG. However, given that Fidelity and the Trustees as fiduciaries should resolve doubt in favor of the Funds, an amount should be paid sufficient to compensate the Funds for any possible damages.

B. Execution Quality

With respect to execution quality, the statistical evidence, with its recognized limitations, is the best guide available for fixing an appropriate amount of restitution for the Funds. Requiring a payment at the top of the 95% confidence level interval provides a substantial level of confidence that the required payment will fully compensate the Funds for any losses they sustained.

The question that remains is which of the several variations of the statistical analysis should be accepted as most probably reflecting the harm that occurred. While it could be argued that the top block analysis, which measures the performance of the broker from the time the trader places the first order for any portion of the block with the broker, is the best measure of the costs resulting from the performance of that trader/broker pair, we share CRA's view that the creeping block analysis is a better measure of the broker's performance.

CRA has analyzed six variations of the creeping block analysis. They used three different weighting methods to calculate the average cost for the untainted brokers: (i) number of orders; (ii) dollar value of the orders; and (iii) number of shares covered by the

order. For each weighting method, they produced separate estimates of harm with and without the return variable, then for each of the six resulting estimates of harm, they calculated confidence intervals with and without an adjustment for broker heterogeneity. CRA has suggested, and we agree, that the results without the return variable, and with the confidence intervals that adjust for broker heterogeneity, provide the more reasonable guide. We also agree with CRA that averaging across the untainted brokers using dollar value of the placement may give undue weight to the larger trades.

There is no clear answer, however, to the question whether the analysis that averages across the untainted brokers based on number of orders or number of shares in an order is better for determining the amount of harm resulting from the receipt of TEGG. Using the number of shares creates the risk that too much weight will be given to large trades. On the other hand, one would expect that a trader seeking to reward a broker for TEGG would focus on the number of shares in the order, since that number determines the commission the broker is paid. Rather than choose either one of these variables, I have determined that it is best to take the average of the two.

The top of the 95% confidence interval for the analysis of creeping blocks based on number of shares, using the bid and ask quotations as the benchmark for sales and buys respectively, with an adjustment for broker heterogeneity, is \$32.0 million and the comparable figure based on number of orders is \$24.8 million. Thus, I recommend that the Trustees require a payment from Fidelity of \$28.4 million to account for possible execution harm.

C. Order Flow

There is no reliable statistical method that can be employed to calculate order flow harm. Thus, a determination of the amount of reimbursement that the Trustees should seek from Fidelity to compensate the Funds for possible order flow harm must rely to a large extent on intuition and an overall sense of fairness.

CRA has been able to estimate that the tainted brokers received \$90 million more in commission business (net of soft dollar and expense reimbursements) from the tainted traders than they would have been expected to receive based on the amount of business sent to those same brokers by non-tainted traders. An argument can be made that Fidelity should be required to pay the Funds the entire amount of the excess commission, which might be the amount of the liability a court would impose on a broker who was sued for making unauthorized payments to a trader. It would seem unfair to tax Fidelity with the entire amount of the excess commissions paid to the tainted brokers, however, since the Funds did receive valuable brokerage services from those brokers, including services and expertise that could have been unique to those brokers and thus have resulted in legitimately larger order flow to that broker. In addition, fairness suggests that some recognition be given to the fact that any deficiency in execution quality will be recompensed through the payment of the amount calculated above for execution harm and that, as a general matter, Fidelity has placed great pressure on brokers to reduce their commission rate well below industry averages.

Yet, the excess order flow diverted to the tainted brokers in return for TEGG was an asset of the Funds which had economic value, and the Funds should be compensated

for the value diverted. There are two statistics that may be useful in attempting to quantify the value of the diverted order flow.

First, it may be useful to consider the profitability to the brokers of excess order flow. Fidelity suggested this measure in a proposal to settle all of the liability issues, and suggested that, on average, brokerage firms have a 30% profit margin on their brokerage business. Another way of measuring the value of order flow to the brokers is to look at the discount in commission rate that a brokerage firm was willing to accept in order to receive the additional order flow that they expected as a result of being designated as a core broker. **Redacted**

Redacted

Redacted

Accepting these figures, it appears that core brokers determined that it was worth taking an ^{Reda}_{cted} reduction in their commission rate in order to receive increased order flow from Fidelity.

There are problems with using these statistics to quantify the order flow harm the Funds may have suffered. While the average brokerage firm may realize a 30% profit on all of its brokerage business, the marginal costs associated with the additional commission business generated by the payment of TEGG would no doubt be substantially less than 70%, and therefore the excess profit would be substantially more than 30%. However, it is not reasonable to assume that brokers, who had already agreed to an ^{Redac}_{ted} reduction in their commission rate in order to become core brokers, would have agreed to an additional 30% reduction in their commission in order to obtain even more business.

Redacted

Given all of the uncertainties involved in estimating the dollar value of the order flow harm resulting from the receipt of TEGG, I recommend that the Trustees require Fidelity to pay the Funds an amount equal to 25% of the excess commissions paid to the tainted brokers. Even though it is reasonable to believe that the marginal profit to the brokers from the additional order flow exceeded 30%, I believe a requirement of a 25% payment fairly balances the possibility that a substantial part of the excess order flow probably resulted from a relationship of trust and confidence between the traders and brokers that had nothing to do with TEGG and the difficulty in translating order flow into specific economic benefits to the Funds, with the recognition that order flow which has value was wrongfully diverted to the tainted brokers.

D. Interest and Cost

In addition to the specific amounts calculated above as appropriate payments for possible execution harm and order flow harm, I consider it appropriate for Fidelity to pay interest calculated on the basis of the monthly market yield on US treasury securities at a one-year constant maturity from a date representing the midpoint in the period of the harm (approximately July 1, 2003 on a volume-weighted basis).¹³

Since Fidelity's failure to supervise adequately its traders created a situation which the Independent Trustees had to investigate in order to perform their fiduciary duty to the Funds, it is entirely appropriate for Fidelity to bear the expenses of the

¹³ The interest figure in the table on page 73 is based on FRB data through September 2006 and assumes a 5.05% interest rate for October and November 2006, and payment as of the end of November; amounts paid should be adjusted to give effect to the actual payment date and interest rates.

investigation. The expenses figure in the table below reflects Fidelity's estimate of all such costs as of July 31, 2006. This number should ultimately be updated as of the completion of this process and made the subject of a separate accounting by Fidelity to be approved by the Independent Trustees.

E. Payments

In light of the above, I recommend that the following payments be sought from Fidelity:

Execution Quality issue - all accounts	\$28.4 million
Order Flow issue - all accounts	<u>\$22.5 million</u>
Subtotal	<u>\$50.9 million</u>
Portion of subtotal allocated to mutual funds	\$40.7 million
Reimbursement of expenses borne by the mutual funds	\$8.2 million
Interest (as of November 30, 2006) ¹⁴	<u>\$4.5 million</u>
Total	<u>\$53.4 million</u>

The reference to the subtotal allocated to mutual funds in this chart reflects that all analyses of possible harm have been directed to all trades made by Fidelity's equity trading desk, but not all of these trades have been made in Funds subject to the Independent Trustees' supervisory authority. The adjustment reflected in the chart is an estimate applying an 80% allocation percentage on the basis of numbers furnished by

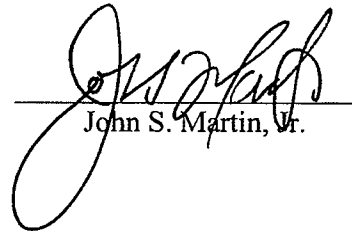
¹⁴ This figure does not include interest on expense reimbursements, which should be calculated separately based on the actual dates of expense payments by the Funds and reimbursed by Fidelity, at the monthly market yield on U.S. Treasury securities at one-year constant maturity.

Fidelity. This allocation percentage is subject to adjustment in the submission Fidelity makes to the Independent Trustees respecting a proposed distribution methodology.

F. Distribution

The Trustees should direct Fidelity to present to the Trustees, for their review and approval, a proposed methodology for allocating this compensation among the Funds for which Fidelity serves as the adviser.

Date: November 16, 2006


John S. Martin, Jr.